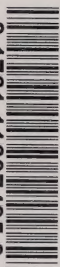


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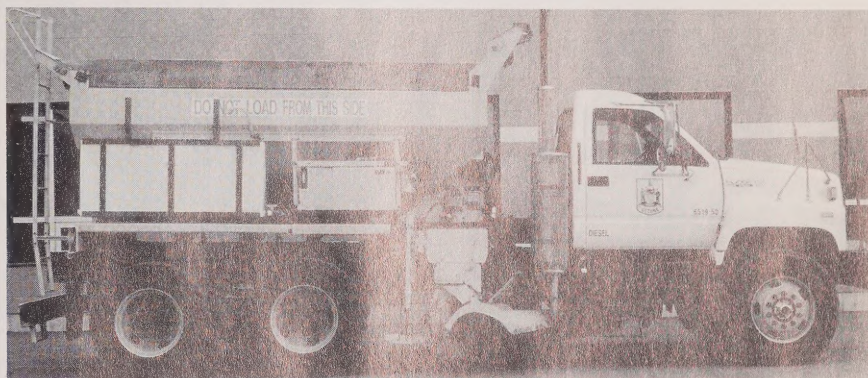
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FleetSmart PROFILES

THE CITY OF OTTAWA

*Fleet Management Initiatives Contribute
to Fuel Economy and Emission Reductions*



Over the past few years, the City of Ottawa has adopted a number of fleet management initiatives as part of its effort to reduce carbon dioxide emissions, community-wide, by 20 per cent. Today, these initiatives are providing an important added benefit of improving fuel economy across the city's fleet.

Spec'ing for smaller engines

The City of Ottawa operates a fleet of more than 700 vehicles, ranging from cars and light trucks to fire-trucks, roadway sweepers and snowplows. The size and diversity of the fleet has presented city managers with a number of opportunities for action.

One of the most successful initiatives to date has been the downsizing of engines in the city's medium- and heavy-duty trucks. The new electronic engines available today can deliver the power needed for heavier tasks using smaller block sizes than in the past and are also more fuel-efficient. The downsizing strategy is being implemented primarily by spec'ing for smaller engines when replacement vehicles are purchased.

service

opportunity

"We're making every attempt to replace our big-block engines with small-block ones," explains Dwight McMillan, Fleet Manager for the city.

"Where new, smaller displacement, electronic engines have replaced our older '70s and '80s engines, we have seen fuel savings in the order of 37 per cent."

This improved fuel economy has, in turn, resulted in fewer exhaust emissions from the fleet's medium- and heavy-duty vehicles. Mr. McMillan estimates that the use of smaller electronic engines has reduced emissions from the diesel portion of the fleet by 20 per cent per vehicle.

Introducing alternative fuels

Another major energy-management initiative being pursued by the City of Ottawa is the use of alternative transportation fuels.

An attempt in the mid-1980s to switch some of the city's gasoline vehicles to propane was unsuccessful, due to problems of fuel supply and the inconsistent quality of the conversions. By 1994, however, with the widespread availability of propane and natural gas, as well as changes in safety regulations, the city was ready to try again.

This time around, the alternative fuels program has been much more successful. The cost of a conversion from gasoline to propane or natural gas is approximately \$2,500 per vehicle, but this investment results in immediate savings in fuel costs. Mr. McMillan estimates that payback of a typical conversion occurs

Routing software for snowplow operations

The City of Ottawa is field testing the use of a computerized routing system to improve its snowplowing operations. The objective is to reduce the amount of time it takes to plow the city's roads by defining more efficient routes for the 96 snowplows in the fleet. A routing system can optimize plow routes

while minimizing "dead-heading" – driving on already-plowed routes to get to unplowed routes. Initial tests of the system in one area of the city project a 31 per cent reduction in the number of kilometres driven, which translates into projected

savings of about
\$27,000 to \$30,000
per snowstorm. Based
on these results, the
city is working on grad-
ually expanding the
use of the system to
other areas.

within seven years. Although the cost savings using propane are less than for natural gas, both alternative fuels offer significant environmental benefits because of reduced exhaust emissions.

Focus on fleet maintenance

City managers have also made a conscious decision to focus on ensuring a well-maintained fleet as a means of improving fuel economy and reducing emissions. As Mr. McMillan explains, "Our vehicles get fixed regularly, or they don't go out on the road."

With this in mind, the city follows a regular maintenance regime that includes emission system checks every 24 000 kilometres. Also at this time, injectors are purged and other mechanical systems are serviced according to the manufacturers' specifications.

Complementary strategies

Other fleet management strategies adopted by the City of Ottawa are also achieving excellent results.

For example, in March 1996 a decision was made to allow the use of low-level ethanol-gasoline blends in the city's gasoline vehicles, which comprise more than 70 per cent of the fleet. While there is currently no means of ensuring the use of ethanol-blended fuel, evidence suggests that vehicle operators are increasingly taking advantage of this emission-reducing option. In the first five months after the policy was implemented, the adoption rate reached 30 per cent.

As well, pamphlets and brochures containing information and suggestions on energy-saving driving practices are made available to all vehicle operators.

payback

City managers also make a point of keeping abreast of technological advances that could improve the fleet's use of energy, such as developments in alternative fuel and electric vehicle technologies. In responding to tenders to supply vehicles to the city, bidders must indicate the costs of alternative fuel options in order to be considered.

Finally, the City of Ottawa has adopted a comprehensive program to recycle automotive wastes, such as tires, oil and antifreeze.

Future plans

For Dwight McMillan and his colleagues at city hall, the effort is ongoing to reduce carbon dioxide emissions from the city's fleet. The increased use of alternative fuels, specifying for smaller vehicles and engines, proactive vehicle maintenance programs and the use of computer technology to manage the fleet will all form part of the city's integrated, long-term approach.



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